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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/801,542	03/07/2001	Niklas Bondestam	ASMMC.030AUS	5705
20995	7590	12/16/2004		
KNOBBE MARTENS OLSON & BEAR LLP 2040 MAIN STREET FOURTEENTH FLOOR IRVINE, CA 92614			EXAMINER MARKHAM, WESLEY D	
			ART UNIT	PAPER NUMBER
			1762	
DATE MAILED: 12/16/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action**

Application No.

09/801,542

Applicant(s)

BONDESTAM ET AL.

Examiner

Wesley D Markham

Art Unit

1762

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 03 December 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY** [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
  - (b) ☐ they raise the issue of new matter (see Note below);
  - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
  - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_

3. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: see attached Office Action.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☐ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_

Claim(s) objected to: \_\_\_\_\_

Claim(s) rejected: \_\_\_\_\_

Claim(s) withdrawn from consideration: \_\_\_\_\_

8. ☐ The drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_
10. ☐ Other: \_\_\_\_\_

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## **ADVISORY ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed on 12/3/2004 have been fully considered but they are not persuasive.
2. Regarding the 35 U.S.C. 103(a) rejections based on the combination of Kim et al., Suntola et al., Yokoyama et al., and/or Eichman et al., the applicant argues that none of the references, alone or in combination, teach or suggest selecting the temperature of the chamber walls to maintain a lower rate of ALD film growth as compared to the substrate. The applicant states that the examiner has not identified any teaching or suggestion in the art for targeting or avoiding regions of decreased or increased ALD growth within the ALD temperature window. The applicant argues that the art cited by the examiner does not disclose any understanding of the regions of increased and decreased growth within the ALD temperature window, and none of the references express any particular desire to stay within the ALD window when heating the reactor walls. The applicant concludes by arguing that none of the examiner's references recognize the nested temperature windows disclosed in the present application, wherein the inner window represents optimal ALD growth and the outer window represents lower deposition rates but still suitable for ALD mechanisms.
3. The above argument has been fully considered, but is not convincing for the following reasons. The applicant's arguments are generally based on the applicant's belief that the art does not disclose any understanding of the regions of increased

and decreased growth within the ALD temperature window (e.g., the “nested temperature windows”), and none of the references expresses any particular desire to stay within the ALD window when heating the reactor walls. However, the applicant’s claims do not require such a “nested temperature window” limitation. Looking at the independent claims, Claims 35 and 44 require that the chamber wall temperature be selected to maintain a lower rate of ALD film growth upon the chamber walls as compared to the substrate. However, this “lower rate” is, of course, inclusive of a rate of zero (i.e., no ALD film growth on the walls). Similarly, the reduced rate of ALD film growth on the walls required by Claim 50 is also inclusive of a situation in which no ALD film growth occurs on the walls. Claim 57 explicitly requires that the chamber wall temperature be either above or below the ALD temperature window, not within the outer ALD temperature window still suitable for ALD growth, albeit at a lower ALD rate. As such, the applicant’s arguments are drawn to limitations that are not required by the claims, and the arguments are not convincing.

### ***Conclusion***

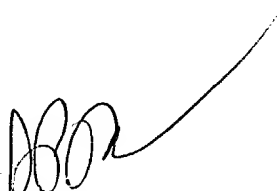
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wesley D Markham whose telephone number is (571) 272-1422. The examiner can normally be reached on Monday - Friday, 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (571) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
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Wesley D Markham  
Examiner  
Art Unit 1762

  
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